

**CLAIMS**

What is claimed is:

1. A digital camera system comprising:
  - a lens;
  - an image sensor for sensing an image viewed by the lens;
  - a display for displaying the image sensed by the image sensor;
  - 5 a storage device for storing the image sensed by the image sensor;
  - processing circuitry coupled to the display, lens, image sensor, and storage device; and
  - a processing algorithm that runs on the processing circuitry that:
    - provides a user interface for selecting if a composite photograph is to be taken
    - 10 and for identifying a location of a first photograph to be taken;
    - after the first photograph has been taken, overlays indicia on the display indicating an overlapping area within a second photograph that is to be taken; and
    - moves the overlaid indicia along with the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is
    - 15 used to align and place the second photograph relative to the first photograph.
2. The system recited in Claim 1 wherein the algorithm displays a user interface on the display for indicating the size of the desired composite photograph.
3. The system recited in Claim 1 wherein the algorithm displays selection buttons on the display as part of the user interface to select if a composite photograph is to be taken.
4. The system recited in Claim 1 wherein the algorithm displays a menu for indicating the size of the desired composite photograph.
5. The system recited in Claim 1 wherein the indicia comprises a grid indicating the width and height of the desired composite photograph.
6. The system recited in Claim 1 wherein the indicia comprises a shadow copy of the first photograph.

7. The system recited in Claim 1 wherein the shadow copy comprises a transparent image.

8. The system recited in Claim 1 wherein the shadow copy comprises a translucent image.

9. The system recited in Claim 1 wherein the algorithm stores the location of photographs that are taken; and after the user selects a location of a subsequent photograph, displays indicia adjacent bordering images to guide the user's placement of the next photograph relative to the indicia on the display.

10. The system recited in Claim 1 wherein the algorithm guides the user to take photographs in a zigzag fashion.

11. A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, and processing circuitry coupled to the display, lens, image sensor, and storage device, the method comprising the steps of:

providing a user interface for selecting if a composite photograph is to be taken and for identifying a location of a first photograph to be taken;

after the first photograph has been taken, overlaying indicia on the display indicating an overlapping area within a second photograph that is to be taken; and

moving the overlaid indicia along with the image displayed on the display as the camera is moved to a position to take the second photograph, which overlaid indicia is used to align and place the second photograph relative to the first photograph.

12. The method recited in Claim 11 further comprising the step of: displaying a user interface on the display for indicating the size of the desired composite photograph.

13. The method recited in Claim 11 further comprising the step of: displaying selection buttons on the display as part of the user interface to select if a composite photograph is to be taken.

14. The method recited in Claim 11 wherein the further comprising the step of: displaying a menu for indicating the size of the desired composite photograph.

15. The method recited in Claim 11 wherein the indicia comprises a grid indicating the width and height of the desired composite photograph.

16. The method recited in Claim 11 wherein the indicia comprises a shadow copy of the first photograph.

17. The method recited in Claim 11 wherein the shadow copy comprises a transparent image.

18. The method recited in Claim 11 wherein the shadow copy comprises a translucent image.

19. A method for use with a digital camera having a lens, an image sensor for sensing an image viewed by the lens, a display for displaying the image sensed by the image sensor, a storage device for storing the image sensed by the image sensor, a user interface, and processing circuitry coupled to the display, lens, image sensor, user

5 interface and storage device, the method comprising the steps of:

- (1) taking a photograph;
- (2) displaying the photograph on the display;
- (3) using a user interface to select that a composite photograph is to be taken;
- (4) using the user interface to indicate in which direction a subsequent

10 photograph is to be taken;

- (5) making the displayed image transparent;

(6) moving the transparent displayed image across the display in a direction that is opposite to the direction of the subsequent photograph until it overlaps a predetermined portion of the subsequent photograph that is to be taken, which overlap is

15 used to align and place the subsequent photograph relative to the photograph;

- (7) taking the subsequent photograph; and

(8) repeating steps (4) through (7) until all photographs making up the composite photograph are taken.

20. The method recited in Claim 19 further comprising the steps of:  
using the user interface to select that the composite photograph is complete; and  
returning the display to normal, nontransparent, operation.

21. A digital camera system comprising:

a lens;

image sensing means for sensing an image viewed by the lens;

display means for displaying the image sensed by the image sensor;

5 storage means for storing the image sensed by the image sensor; and

processing means coupled to the display, lens, image sensor, and storage device  
that embodies a processing algorithm that:

provides a user interface for selecting if a composite photograph is to be taken  
and for identifying a location of a first photograph to be taken;

10 after the first photograph has been taken, overlays indicia on the display  
indicating an overlapping area within a second photograph that is to be taken; and

moves the overlaid indicia along with the image displayed on the display as the  
camera is moved to a position to take the second photograph, which overlaid indicia is  
used to align and place the second photograph relative to the first photograph.

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